In the communication station 81, authentication packet [[transmitting]] <u>receiving</u> section 805 [[encrypts]] <u>decrypts</u> a packet received from the communication station 80 by using the common key K3' or determines whether reception is allowed based on the common key K3' and the authentication value attached to the packet.

Page 45, in the paragraph beginning at line 4:

Diagnosing message receiving section 222 registers in the path state storing section 221 the path state between the home station and a communication station present on a sub-network to which the home station does not belong based on the path state information included in the inter-network diagnosing frame. In the example shown in Fig. [[20]] <u>12</u>, the diagnosing message receiving section 222 registers the path state between the communication station 20 and a communication station on the sub-network 11b, 12b.

Change(s) applied
to document,
/J.L.W./
12/28/2011

20

Page 45, in the paragraph beginning at line 21:

Selecting section 224 [[preparing]] <u>prepares</u> a list of the network addresses of all communication stations present on a sub-network and, in case the address of the home station is one uniquely determined from predetermined conditions, causes the home station to operate as the master station on the sub-network. The address uniquely determined refers to, for example, the highest address, the lowest address, and the like.

Page 18, in the paragraph beginning at line 21:

([[26]]19) The communication control system according [[to any one of]] (1) [[to]]or ([[25]]4), wherein the high-priority communication section performs communication in accordance with a protocol dedicated to process control, and

Page 19, line 2:

[003831]

Page 19, in the paragraph beginning at line 3:

([[27]]20) The communication control system according to [[any one of]] (1) [[to]]or ([[26]]4), wherein the high-priority communication section transfers at least one of process data, an operation amount and an alarm, and

Change(s) applied
to document,
/J.L.W./
12/28/2011

Page 18, after the paragraph beginning at line 9, insert the following:

[0032]

Page 13, in the paragraph beginning at line 13:

([[15]]8) The communication control system according to ([[6]]4), wherein while the

path diagnosing section detects a failure in the main path, the path diagnosing section

broadcasts the failure in the main path to all communication stations in a fixed cycle.

Page 13, line 18:

[002720]

Page 13, in the paragraph beginning at line 19:

([[16]]9) The communication control system according to (15), wherein when the

low-priority communication section receives a broadcast notice indicating that the main

path is faulty, the low-priority communication section controls a transmission so that a

transmission count per unit time of low-priority communication is equal to or smaller than a

predetermined value,

Change(s) applied
to document,
/J.L.W./
12/28/2011   7
        Page 14, line 2:

Page 8, after the paragraph beginning at line 5, insert the following:

wherein the path diagnosing section includes:

a path state storing section for storing path state information of a path state from a

home station to each communication station; and

a fixed-cycle path diagnosing section for diagnosing the communication path from

the home station to each communication station in a fixed cycle,

wherein the fixed-cycle path diagnosing section registers the path state information

obtained from the diagnosis result, in the path state storing section,

the fixed-cycle path diagnosing section broadcasts a path diagnosis packet in

accordance with a multicast protocol of Internet Protocol,

different IP multicast addresses are assigned to the main path and the sub-path

respectively, and

each communication station performs broadcasting by using the IP multicast address

corresponding to a path selected between the main path and the sub-path, as a destination

IP address, and receives a path diagnosis packet of which destination IP address matches

with the IP multicast address corresponding to each of the main path and the sub-path.

Page 9, line 6, delete paragraph [0018] in its entirety.